

# **DEFENSE THREAT REDUCTION AGENCY**

## **BROAD AGENCY ANNOUNCEMENT**

**HDTRA1-09-NTD-BAA**



## **ADVANCED DETECTOR DEVELOPMENT (ADD) AND NUCLEAR FORENSICS RESEARCH AND DEVELOPMENT PROGRAMS**

**November 2008**

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## 1 INTRODUCTION AND BACKGROUND

**1.1. Introduction.** The Defense Threat Reduction Agency's Nuclear Detection Technology Division (DTRA/RD-NTD) oversees the development of new radiological/nuclear detection technologies in support of the DoD mission of detecting, identifying, and eliminating threats from radiological and nuclear weapons of mass destruction (WMD) worldwide. To keep pace with defense capability requirements, RD-NTD routinely promulgates nuclear detection and forensics research.

**1.2. Scope.** This solicitation is an endeavor focused on applied research and advanced technology development encompassing a broad spectrum of topics in nuclear detection and forensics.

## 2 PURPOSE:

2.1. The purpose of this Broad Agency Announcement (BAA) is to solicit proposals to meet DTRA requirements to conduct research in nuclear detection and forensics. DTRA is seeking optimum approaches to meet technology objectives for the programs listed below. Specific topics to be addressed via solicited proposals are presented in Section 7. The goal is to identify and select science and technology projects and prototypes that can be transitioned to joint acquisition programs.

2.1.1. Advanced Detector Development: The goal of this program is to develop technologies to advance the state of the art in systems capable of detecting, locating, imaging, and identifying radiological and nuclear materials in a variety of operational scenarios.

2.1.2. Nuclear Forensics Research and Development: The goal of this program is to develop technologies that provide rapid laboratory-quality chemical, radiological, elemental, and isotopic analysis capability in a deployed environment.

## 3 SOLICITATION APPROACH AND OVERVIEW

3.1. This BAA will be a multi-year BAA, remaining effective for five years from the initial date of issuance, unless otherwise amended. This BAA currently reflects the initial Fiscal Year (FY) 2009 call for proposals based on the topics and timeline identified in Attachment 8. During this five-year effective period, the Government anticipates that additional calls for proposals will occur, at a minimum, on an annual basis. Should the Government initiate additional calls for proposals, an amendment to the BAA will be issued. This BAA, in addition to any amendments issued in conjunction with this BAA, will be posted to the Federal Business Opportunity (FedBizOpps) website and for informational purposes on the DTRA website. It is the responsibility of the offeror and interested parties to stay abreast of BAA amendments by regularly checking the FedBizOpps website.

3.2. This BAA seeks optimum approaches to meet technology objectives of DTRA/RD-NTD. The Government encourages proposals that span a wide spectrum of possible technical and business solutions in response to the specific technology topics stated in Section 7 of this BAA.

The Government reserves the right to award to any combination of approaches which offer the best overall value to the Government, and to oversee any and all processes and approaches once ongoing.

3.3. DTRA is issuing this BAA under provisions of the Competition in Contracting Act of 1984 (Public Law 98-369), as implemented by Federal Acquisition Regulation (FAR) 35.016.

3.4. A full range of contract types are available: Firm-Fixed Price (FFP), Cost, and Cost-Plus-Fixed Fee (CPFF) to DTRA and are possible results from this announcement. Each of the several applicable contract types offer different advantages, liabilities and responsibilities for offerors and the Government. Offerors must specify in their submittal their recommended contract type; however, the government reserves the right to negotiate and award the types of contract determined most appropriate under the circumstances. Please be advised that the Government will only consider using a FFP contract type if an offeror's cost accounting system is unacceptable. If warranted, portions of resulting awards may be segregated into pre-priced options. The Government actions under this BAA shall adhere to the requirements of the FAR and DFARS depending on type of contract awarded.

3.5. DTRA intends to create an environment where potential offerors are willing to share commercially generated research and development with the Government. The Government will negotiate terms and conditions to leverage the successful offerors' advances. The Government seeks to ultimately acquire the best commercial products and technology in addition to offering the appropriate level of protection of corporate and institutional intellectual property rights, thus encouraging participation by a broad spectrum of leading-edge technology developers.

3.6. All coordination and communication between offerors and the government will be conducted using the e-mail address associated with this BAA specified in Section 5.

3.7. The schedule of major milestones for this solicitation is presented in Section 6.1.

3.8. Funding for participation in this program is highly competitive and the cost of proposed technologies should be considered. Awards resulting from this BAA will be made based on the evaluation results of a two-phased proposal process described in Section 8. The final number of projects and funds allocated will be determined after all proposals are received and evaluated. The Government reserves the right to fund all, some, one, or none of the proposals submitted; may elect to fund only part of a submitted proposal; and may incrementally fund any or all awards under this BAA. All awards are subject to the availability of funds. While award is anticipated to occur on or about the date stated in Section 6.1, the Government may select for funding any full proposal or portions of a proposal at any time during the fiscal year.

## **4 ELIGIBILITY**

4.1. Proposals submitted for this solicitation will be considered from the following U.S. and Foreign Enterprises:

- Industrial/commercial concerns including small businesses
- Degree-granting colleges and universities

- Not-for-profit organizations

Proposals are encouraged from Historically Black Colleges and Universities (as determined by the Secretary of Education to meet requirements of Title III of the Higher Education Act of 1965, as amended (20 U.S.C. § 1061)) and from Minority Institutions defined as institutions “whose enrollment of a single minority or a combination of minorities...exceeds 50 percent of the total enrollment.” [20 U.S.C. § 1067k(3) and 10 U.S.C. § 2323(a)(1)(C)].

4.2. The following entities may not participate as prime contractors nor furnish principal investigators in awards made under this BAA but may act as subcontractors:

- DoD-sponsored Federally Funded Research and Development Centers (FFRDCs) specified in DoD FAR Supplement 235.017-1 (<http://farsite.hill.af.mil/VFDFARA.HTM>) and click on ‘DFARS Part 35’
- DoE-sponsored FFRDCs (see requirements of BAA section 14).
- Federal laboratories other than those DoD-sponsored and DoE-sponsored FFRDCs specified above (see requirements of BAA section 14 for other FFRDCs)
- U.S. Government agencies and organizations
- Academic institutions that are federal government organizations (e.g., Naval Postgraduate School)

## 5 POINTS OF CONTACT

E-mail Address for all BAA correspondence and questions	NTD-BAA-09@DTRA.MIL
BAA Announcement	<a href="http://www.fbo.gov">http://www.fbo.gov</a>
DTRA Proposal Submission Website (requires registration prior to proposal submission)	<a href="http://www.dtrasubmission.net">http://www.dtrasubmission.net</a> (see Section 6.3.1)
DTRA Website	<a href="http://www.dtra.mil">http://www.dtra.mil</a>

Questions regarding the technical and administrative content of this BAA must be addressed to the e-mail address listed above. All questions must include the BAA number in the subject line. DTRA will post questions and answers to the FedBizOpps website that are relevant to all potential offerors. It is the offeror’s responsibility to periodically check the FedBizOpps website ([www.fbo.gov](http://www.fbo.gov)) to view postings of questions and answers, in addition to any applicable amendments to the solicitation.

## 6 PROPOSAL SUBMISSION

6.1. Major Milestones: See Chart of Milestones, to include mandatory submission deadlines, in Attachment 8.

6.2. Submission Overview: Offerors interested in providing a submission or submissions in response to this BAA must register by electronic means in accordance with instructions in

Section 6. Failure to register as stated will prevent an Offeror's submission of documents required for Phase I and will render them ineligible for participation in this BAA. For each phase of submission, Offerors will complete a Cover Sheet on the DTRA Proposal Submission Website. The first submission, Phase I, is for receipt of Quad Charts/White Papers, and the submission deadline is listed in Section 6.1. The second phase of this solicitation is by invitation only. Invitation to the Phase II, full proposal submission (Volume I - technical proposal, Volume II - cost proposal and Volume III - supplemental information to include, but not limited to, a Statement of Work and updated Quad Chart) will be based on the evaluation results in Phase I.

### 6.3. Application and Submission Information.

6.3.1. Submission Process. Registration at the DTRA Proposal Submission Website prior to submission of Phase I proposals is required. Proposals must be submitted electronically through the DTRA Proposal Submission Website stated in Section 5. Detailed registration and submission instructions are available at the site.

Proposals submitted by any means other than the DTRA Proposal Submission Website (e.g., hand-carried, postal service, commercial carrier, and e-mail) will not be considered. Offerors are responsible for ensuring compliant and final submission of their proposals, and can verify the submission of the proposal package with the electronic receipt that appears on the screen following submission of a proposal to the DTRA Proposal Submission Website. Offerors should consider printing this electronic receipt for their records.

**For purposes of this BAA, the primary proposal submission website for all types of instruments is the DTRA Proposal Submission Website.**

6.3.2. Registration. All offerors interested in submitting proposals must register on the DTRA Proposal Submission Website. Registration must be submitted by a central Business Point of Contact (BPOC) rather than individual Principal Investigator personnel. A BPOC is a person who is given the responsibility of coordinating all submissions from individual Principal Investigators at his or her work location and is the only individual who may access the DTRA Proposal Submission Website. The intent is that all submissions from an organization be coordinated and submitted by a single, identified responsible party. Failure to register in accordance with instructions may render them ineligible for participation in this BAA. Interested organizations must register at the DTRA Proposal Submission Website even if previously registered at any other proposal submission site for prior DTRA acquisition opportunities. Prior registration at any other proposal submission site does not fulfill registration requirements for participation in this BAA.

6.3.3. **IMPORTANT:** Registration at the DTRA Proposal Submission Website is NOT the same as registering at the Central Contractor Registration (CCR) website, or FedBizOpps websites. Failure to compliantly register at the DTRA Proposal Submission Website will prevent an offeror's submission of documents required for Phase I and thus render them ineligible for participation in this BAA.

6.3.4. Using the DTRA Proposal Submission Website, all Offerors must prepare Proposal Cover Sheets (for both Phase I submissions and for invited Phase II submissions), including basic identifying information for their place of business / institution and the points of contact. Once the cover sheet is saved, the system will assign a unique proposal number for each Phase I submission and a different unique proposal number for each invited Phase II submission. Cover sheets may be edited as often as necessary until the submission period closes.

6.4. Two-Phased Submission. This solicitation will be conducted in two phases as follows:

6.4.1. Phase I – Interested offerors are required to complete a cover sheet using the DTRA Proposal Submission Website, and must submit Quad Chart/White Papers in accordance with instructions provided in this section of the BAA and in accordance with the deadline stated in Section 6.1. Proposals will be evaluated against criteria as described in Section 8 of this BAA. Based on this evaluation, selected offerors will be invited to submit full proposals for evaluation under Phase II.

6.4.1.1. Phase I – Quad Chart/White Paper Submission and Content. Interested offerors are required to submit a Quad Chart and a two-page narrative (White Paper) that expands on the information provided in the Quad Chart. Each submission (Quad Chart and White Paper narrative) must specify the research area addressed in the proposal by identifying, at the end of the project title, the specific topic number as presented in Section 7 of this BAA. See Quad Chart and White Paper format and narrative guidelines below.


6.4.1.1.1. Quad Chart Format: All Quad Charts should include the information indicated on the sample template located in Attachment 1.

- a. Heading: Title, Research Area Addressed, Topic Number, Principal Investigator, Organization
- b. Upper Left: Objective, Description of Effort
- c. Lower Left: Benefits of Proposed Technology, Challenges, Maturity of Technology, Research Area Addressed. Maturity information should indicate, where possible, the current readiness level of proposed technology and anticipated level of the proposed technology at project completion. Refer to Attachment 2 for established Technology Readiness Level categories.
- d. Upper Right: Picture or graphic illustrating proposed technology development
- e. Lower Right: Milestones, Cost, Period of Performance, Contact Information

**All quad charts must be prepared and submitted in landscape format.**

6.4.1.1.2. White Paper Narrative Format. The White Paper narrative expands on the Quad Chart presentation, and must not exceed two pages, 8.5 x 11 inches, single-spaced, with one-inch margins in type not smaller than 12 point font. Any pages submitted that exceed the two-page limit will not be read or evaluated. The project title must be included at the top of the page and must cite the topic number; refer to Section 7. The content of the White Paper narrative must be limited only to further explanation, as deemed necessary by the Offeror, of the information being conveyed as requested in the Quad Chart. Do NOT include corporate or personnel qualifications, past experience, or any supplemental information not requested in the Quad Chart.



6.4.1.2. Submission File Format. The Quad Chart and White Paper must be uploaded as two separate documents (two individual and separate files). The files must be submitted in a Portable Document File (PDF) format compatible with Adobe Acrobat ® version 8.0 or earlier. The Quad Chart must be positioned in a landscape view. The White Paper must be provided in portrait layout. Each file will not exceed 2 Megabytes of storage space. Movie and sound file attachments, or other additional files, will not be accepted. If multiple proposals are being submitted by the same institution, separate cover sheets must be generated for each proposal and the Quad Chart and White Paper uploaded with the associated cover sheet, since a unique document number will automatically be assigned to each submission by the electronic proposal tracking system. All documents submitted to the DTRA Proposal Submission Website are considered works in progress and are not eligible for evaluation until the Offeror submits the final proposal package for consideration. The final submission must be 'locked' on the DTRA Proposal Submission Website; until a submission has been 'locked' (saved as final), the submission is not eligible for review. Look for this 'lock' icon  on the DTRA proposal submission web-site. Offerors are responsible for ensuring compliant and final submission of their proposals, and can verify the submission of the proposal package with the electronic receipt that appears on the screen following submission of a proposal to the DTRA Proposal Submission Website. Perform a virus check before uploading any proposal files. If a virus is detected, it may cause rejection of the file. Do not lock or encrypt any files you upload.

6.4.1.3. Classification: All Quad Chart/White Paper submissions must be UNCLASSIFIED. All information provided in the White Paper that is marked appropriately will be considered proprietary information, as indicated in Section 6.5.

6.4.1.4. Notification to Offerors: Debriefings for Quad Charts/White Papers will not be provided due to the nature of the BAA. However, a brief synopsis of the Government's evaluation in the form of the Summary Statement will be provided upon written request to the e-mail address stated in Section 5.

6.4.1.5. Phase II Invitations: An invitation to submit a full proposal will be extended to those offerors whose submissions were selected in Phase I; the invitation will be transmitted via e-mail to the offeror's registered BPOC on or about the deadline stated in Section 6.1. The offerors must be aware that it is their responsibility to ensure that this e-mail notification reaches the intended recipient and is not blocked by the use of 'spam blocker' software or other means that the recipient's Internet Service Provider may have implemented as a means to block the receipt of certain e-mail messages. Additionally, it is the responsibility of the BPOC to inform the Principal Investigator (PI) of the invitation to prepare a Phase II submission.

6.4.1.6. Offerors invited to participate in Phase II must submit their full proposals in accordance with the instructions provided in Section 6.4.2 of this BAA. Full proposals will be evaluated against criteria as described in Section 8 of this BAA. Submission procedures are detailed in this BAA, and further detail may be given in the invitation. Any submission that does not conform to the requirements outlined in the BAA and in the invitation will not be reviewed and will not be considered further. The due date for the Phase II proposals is stated in Section 6.1.

6.4.2. Phase II - Full Proposal Submission and Content. The full proposal must be prepared in three separate volumes: Volume I – Technical Proposal; Volume II – Cost Proposal; and Volume III – Supplemental Information, to include a Statement of Work and an updated Quad Chart.


6.4.2.1. Volume I – Technical Proposal. The technical proposal must not exceed 25 pages. If the proposal exceeds 25 pages, only the first 25 pages will be reviewed. A page is defined as 8 ½ x 11 inches, single-spaced, with one-inch margins in type not smaller than 12 point font. The technical proposal must include the components included in the template as shown in Attachment 4 of this BAA. Phase II technical proposals must be UNCLASSIFIED. All information provided that is marked appropriately will be considered proprietary information, as indicated in Section 6.5.

6.4.2.2. Volume II – Cost Proposal. The cost volume should contain cost estimates sufficiently detailed for meaningful evaluation. Additionally, a cost summary must be prepared and submitted in conjunction with the detailed cost proposal. The cost summary must not exceed 2 pages; however, the cost proposal does not have a page limit. The budget must include the total cost of the project, and the cost proposal must provide a breakdown of the amount(s) by task. The cost proposal must include the components included in the template as shown in Attachment 5 of this BAA. Separate cost proposals should be provided and incorporated into Volume II for any subcontracts or consultants.

6.4.2.3. Volume III – Supplemental Information. This volume contains supplemental data. More information about the specific information to include is located in the sections referenced below. This Volume must contain the following items of information. If any particular item is not relevant to the proposed effort, include a reference to the requested information and state that the particular information is not applicable in order to confirm a negative response.

	<b>Item</b>	<b>Required</b>	<b>Reference</b>
<b>1.</b>	<b>Updated Quad Chart</b>	Yes	Template in Attachment 1
<b>2.</b>	<b>Statement of Work</b> (submitted in both Adobe Acrobat ® version 8.0 or earlier and Microsoft ® Word 2003 or earlier)	Yes	Template in Attachment 6
<b>3.</b>	<b>DUNS, TIN and NAICS</b>	Yes	---
<b>4.</b>	<b>Certifications and Representations</b>	Yes	Section 14
<b>5.</b>	<b>CCR</b>	Yes	Section 15
<b>6.</b>	<b>Human Subjects</b>	If Applicable	Section 16
<b>7.</b>	<b>Animal Use</b>	If Applicable	Section 17
<b>8.</b>	<b>Organizational Conflict of Interest Advisory</b>	Yes	Section 18
<b>9.</b>	<b>Intellectual Property Assertions</b>	Yes	Section 19
<b>10.</b>	<b>Subcontracting Plan</b>	If Applicable	Section 20

	<b>Item</b>	<b>Required</b>	<b>Reference</b>
<b>11.</b>	<b>Recommended Contract/Pricing Arrangement and Rationale</b>	Yes	Section 21
<b>12.</b>	<b>Authorized Offeror Personnel</b>	Yes	Section 22
<b>13.</b>	<b>Statement of Current and Pending Support</b>	Yes	Section 23
<b>14.</b>	<b>DCMA/DCAA Representatives</b>	Yes	Section 24
<b>15.</b>	<b>Confirmed Proposal Expiration Date</b>	Yes	Section 25

6.4.2.4. Submission File Formats. Each volume of the proposal must be submitted as a separate Portable Document File (PDF) compatible with Adobe Acrobat ® version 8.0 or earlier. Additionally, the SOW must also be submitted in Microsoft ® Word 2003 or earlier. Each individual file will not exceed 5 Mbytes of storage space. Movie and sound file attachments, or other additional files, will not be accepted. If multiple proposals are being submitted by the same institution, separate cover sheets must be generated for each proposal and the full proposal files uploaded with the associated cover sheet, since a unique document number will automatically be assigned to each submission by the electronic proposal tracking system. All documents submitted to the DTRA Proposal Submission Website are considered works in progress and are not eligible for evaluation until the Offeror submits the final proposal package for consideration. The final submission must be ‘locked’ on the DTRA Proposal Submission Website; until a submission has been ‘locked’ (saved as final), the submission is not eligible for review. Look for this ‘lock’ icon  on the DTRA proposal submission web-site. Offerors are responsible for ensuring compliant and final submission of their proposals, and can verify the submission of the proposal package with the electronic receipt that appears on the screen following submission of a proposal to the DTRA Proposal Submission Website. Perform a virus check before uploading any proposal files. If a virus is detected, it may cause rejection of the file. Do not lock or encrypt any files you upload.

6.4.2.5. Notifications to Offerors. Offerors will be notified by DTRA of their selection/non-selection status of the Phase II Full Proposal via the DTRA Proposal Submission Website. Debriefings will be provided upon written request (to the e-mail address as stated in Section 5 is acceptable) from a Phase II offeror only and will be provided to offerors via the DTRA Proposal Submission Website.

6.4.2.6. Classification. All submission must be UNCLASSIFIED. All information provided that is marked appropriately will be considered proprietary information, as indicated in Section 6.5.

6.5. Marking of White Paper and Proposal and Disclosure of Proprietary Information other than the Government.

6.5.1. The Quad Chart portion of the submission will not contain information deemed trade secret, confidential or proprietary by the Offeror.

6.5.2. The white paper/proposal submitted in response to this solicitation may contain technical and other data that the Offeror does not want disclosed to the public or used by the Government for any purpose other than proposal evaluation. Public release of information in any white paper/proposal submitted will be subject to existing statutory and regulatory requirements. If proprietary information which constitutes a trade secret, proprietary commercial or financial information, confidential personal information, or data affecting the national security, is provided by an Offeror in a white paper/proposal, it will be treated in confidence, to the extent permitted by law, provided that the following legend appears and is completed on the front of the white paper/proposal: "For any purpose other than to evaluate the white paper/proposal, this data shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed in whole or in part, provided that if an award is made to the Offeror as a result of or in connection with the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the agreement. This restriction does not limit the right of the Government to use information contained in the data if it is obtained from another source without restriction. The data subject to this restriction is contained in page(s) \_\_\_\_\_ of this white paper/proposal." Any other legend may be unacceptable to the Government and may constitute grounds for removing the proposal from further consideration without assuming any liability for inadvertent disclosure. The Government will limit dissemination of properly marked information to within official channels. In addition, the pages indicated as restricted must be marked with the following legend: "Use or disclosure of the white paper/proposal data on lines specifically identified by asterisk (\*) are subject to the restriction on the front page of this white paper/proposal." The Government assumes no liability for disclosure or use of unmarked data and may use or disclose such data for any purpose.

6.5.3. In the event that properly marked data contained in a white paper/proposal submitted in response to this BAA is requested pursuant to the Freedom of Information Act, 5 USC 552, the Offeror will be advised of such request and, prior to such release of information, will be requested to expeditiously submit to DTRA a detailed listing of all information in the white paper/proposal which the Offeror believes to be exempt from disclosure under the Act. Such action and cooperation on the part of the Offeror will ensure that any information released by DTRA pursuant to the Act is properly identified.

6.5.4. By submission of a Quad-Chart/White Paper/proposal, the Offeror understands that proprietary information may be disclosed outside the Government for the sole purpose of technical evaluation. The Contracts Office will obtain a written agreement from the evaluator that proprietary information in the white paper/proposal will only be used for evaluation purposes and will not be further disclosed or utilized.

## 6.6. Late Submissions and Withdrawal of Proposals.

6.6.1. Offerors are responsible for access to the DTRA Proposal Submission Website and for submitting electronic proposals so as to be received at the Government office designated in this BAA no later than the time and dates stated in Section 6.1. When sending electronic files, the Offeror will account for potential delays in file transfer from the originator's computer server to the Government website/computer server. Offerors are encouraged to submit their proposals

early to avoid potential file transfer delays due to high demand encountered as the submission deadline approaches.

6.6.2. If the proposal is received at the Government office designated in this BAA after the exact time and date specified for receipt of offers, it is "late" and will not be considered. This applies for both Phase I and Phase II submissions.

6.6.3. Acceptable evidence to establish the time of receipt at the Government office includes documentary and electronic evidence of receipt maintained by the installation. Offerors should also print, and maintain for their records, the electronic receipt that appears on the screen following submission of a proposal on the DTRA Proposal Submission Website.

6.6.4. If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

6.6.5. Proposals may be withdrawn by written notice received at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer via the e-mail address listed in Section 5.

6.7. The Government will reject Phase I or Phase II submissions that are deemed non-compliant, i.e., that deviate from the instructions in the BAA.

## **7 TOPICS**

Attachment 8 presents the list of topics with associated requirements for which proposals are sought. Each proposal submitted may be for one proposed project only. Offerors should use their best judgment. It is incumbent on the offeror to conduct independent research to understand how the specific technology propose can be properly applied to the requirements. Offerors may submit proposals to more than one topic.

The topics and schedule are included in Attachment 8 of the second issuance of this Multi-Year BAA. This BAA currently reflects the initial FY 2009 call for proposals based on the topics and timeline identified in Attachment 8. During this five-year effective period, the Government anticipates that additional calls for proposals will occur, at a minimum, on an annual basis. Should the Government initiate additional calls for proposals, an amendment to the BAA will be issued. This BAA, in addition to any amendments issued in conjunction with this BAA, will be posted to the FedBizOpps website and for informational purposes on the DTRA website. It is the responsibility of the offeror and interested parties to stay abreast of BAA amendments by regularly checking the FedBizOpps website.

## **8 EVALUATION CRITERIA AND SELECTION PROCESS**

8.1. The Quad Chart/White Paper (Phase I) and invited full proposal (Phase II) evaluation and selection process will be conducted based upon a technical peer review as described in Federal Acquisition Regulation Subparts 6.102(d)(2) and 35.016. Each proposal will be evaluated based on its technical merit and relevance of the specific proposal as it relates to the program goals of DTRA/RD-NTD. All documents necessary for the review and evaluation of the Phase I and Phase II submissions must be provided as described in Section 6 of this BAA.

8.2. Quad Chart/White Paper (Phase I) Evaluation. The evaluation will be based on two criteria. The criteria will be scored as Excellent (E), Good (G), Fair (F) or Poor (P). Quad Charts/White Papers scored as “Poor” in any single category will be deemed “Not Selectable” and will not be considered further.

8.2.1. Phase I evaluation criteria to be used to evaluate and select Quad Charts/White Papers. The following two criteria are listed in descending order of importance.

8.2.1.1. Scientific/Technical Merit. The objective of this criterion is to assess the extent to which the Offeror has an innovative, unique, high payoff, and comprehensive technical approach based on sound scientific principles. Offerors must demonstrate that their approach is innovative and unique, and responsive to the topic as presented in this solicitation, that the technical approach is sound, that they have an understanding of critical technical issues and risk and that they have a plan for mitigation of those risks. Significant improvements in nuclear detection and forensics technology capability above the state of the art are sought.

8.2.1.2. Value to Program Goals. The objective of this criterion is to assess the extent to which the Offeror has a credible and feasible scientific solution that best meets or exceeds the topic requirements and provides a rapid path of application of the technology to the Department of Defense. Offerors must demonstrate a clear knowledge of desired military capabilities and indicate the manner in which the technology will transition. Proposals must demonstrate how the proposed research supports the program goals and responds to the specific topic areas. Offerors must demonstrate that the new technology can be implemented or utilized by end-users as a means to improve their operational capabilities.

8.3. Full Proposal (Phase II) Evaluation. The evaluation will be based on four criteria. The criteria will be scored from Excellent (E) to Poor (P). Cost Realism and Reasonableness will be scored as Acceptable or Unacceptable. Proposals scored as “Poor” in any single category will be deemed “Not Selectable” and will not be considered further for funding.

8.3.1. Phase II evaluation criteria to be used to evaluate and select full proposals. The evaluation will be based on the four criteria below and are reflected in descending order of importance.

8.3.1.1. Scientific/Technical Merit: The objective of this criterion is to assess the extent to which the Offeror has an innovative, unique, high-payoff, and comprehensive technical approach based on sound scientific principles. Offerors must demonstrate that their approach is innovative, unique and responsive to the topic as presented in this solicitation, that the technical approach is sound, that they have an understanding of critical technical issues and risk and that

they have a plan for mitigation of those risks. Significant improvements in nuclear detection and forensics technology capability above the state of the art are sought.

8.3.1.2. Value to Program Goals: The objective of this criterion is to assess the extent to which the Offeror has a credible and feasible scientific solution that best meets or exceeds the topic requirements and provides a rapid path of application of the technology to the Department of Defense. Offerors must demonstrate a clear knowledge of desired military capabilities and indicate the manner in which the technology will transition. Proposals must demonstrate how the proposed research supports the program goals and responds to the specific topic areas. Offerors must demonstrate that the new technology can be implemented or utilized by end-users as a means to improve their operational capabilities.

8.3.1.3. Program Capabilities. The objective of this criterion is to assess the extent to which the offeror's team has the requisite experience, skills and resources necessary to perform the proposed program. This includes an assessment of the team's management construct, key personnel, facilities and past performance in conducting similar efforts of the proposed scope. Offerors must demonstrate that their team has the necessary background and experience to perform this project. Facilities should be detailed with discussion of any unique capabilities pertinent to the research. Subcontractors may include Government facilities or Agencies; however the unique expertise or specialized facilities provided through their inclusion must be clearly presented.

8.3.1.4. Cost Realism and Reasonableness. Offerors must establish that the proposed costs are reasonable and realistic for the technical approach offered. The proposal will also be evaluated for cost justification in relation to the scope of the proposed effort.

8.4. Other factors that may be considered are duplication with other research, program balance across research topics, and budget limitations. The Government may also evaluate the impact of any asserted data/software restrictions or patents during the selection and/or negotiation process, and may request additional information from the Offeror, as may be necessary, to evaluate the offeror's assertions.

8.5. The Government reserves the right to select all, some, or none of the proposals, or any part of any proposal, received in response to this solicitation and to make awards without discussions with offerors; however, the Government reserves the right to conduct discussions if the Selection Authority later determines them necessary.

8.6. Past Performance. Prior to award, the Government will perform responsibility checks which includes a review of past performance. Sources for past performance review may include Past Performance Information Retrieval System (PPIRS), and government sources such as Defense Advanced Research and Projects Agency (DARPA) and Army Research Office (ARO). Government program managers and contracting officers who are familiar with the offeror's relevant past performance may also be contacted.

## **9 INFORMATION TO BE REQUESTED FROM SUCCESSFUL OFFERORS**

Offerors whose proposals are accepted for funding will be contacted before award to provide additional information required for award. This may include revised budgets or budget explanations and other information as applicable to the proposed award. Fact-finding and negotiations are conducted with offerors to clarify any questions regarding their proposals. The Contracting Officer may establish a deadline for the close of fact-finding and negotiations that allows a reasonable time for the award of the contract. Offerors that are not responsive to government requests for information in a timely manner, defined as meeting government deadlines established and communicated with the request, may be removed from award consideration. Offeror may also be removed from award consideration should the parties fail to reach agreement on contract terms, conditions and cost/price within a reasonable time.

## **10 MILITARY RECRUITING**

This is to notify potential offerors that each contract awarded under this announcement to an institution of higher education must include the following term and condition: “As a condition for receipt of funds available to the Department of Defense, DoD, under this award, the recipient agrees that it is not an institution of higher education (as defined in 32 Code of Federal Regulations (CFR) Part 216) that has a policy of denying, and that it is not an institution of higher education that effectively prevents, the Secretary of Defense from obtaining for military recruiting purposes: (A) entry to campuses or access to students on campuses; or (B) access to directory information pertaining to students. If the recipient is determined, using procedures in 32 CFR Part 216 to be such an institution of higher education during the period of performance of this agreement, and therefore to be in breach of this clause, the Government will cease all payments of DoD funds under this agreement and all other DoD grants and cooperative agreements, and it may suspend or terminate such grants and agreements unilaterally for material failure to comply with the terms and conditions of award.” 32 CFR Part 216 may be accessed electronically at <http://www.gpoaccess.gov/cfr/index.html>. If your institution has been identified under the procedures established by the Secretary of Defense to implement Section 558 of Public Law 103-337, then: (1) no funds available to DoD may be provided to your institution through any grant, including any existing grant; (2) as a matter of policy, this restriction also applies to any cooperative agreement; and (3) your institution is not eligible to receive a grant or cooperative agreement in response to this solicitation. This is to notify potential Offerors that each contract awarded under this announcement to an institution of higher education must include the clause: Defense Federal Acquisition Regulation Supplement (DFARS) 252.209-7005, Reserve Officer Training Corps and Military Recruiting on Campus.

## **11 EXPORT CONTROL NOTIFICATION**

Offerors are responsible for ensuring compliance with any export control laws and regulations that may be applicable to the export of and foreign access to their proposed technologies. Offerors may consult with the Department of State with any questions regarding the International Traffic in Arms Regulation (ITAR) (22CFR Parts 120 – 130) and/or the Department of Commerce regarding the Export Administration Regulations (15 CFR Parts 730-774).



## **12 TECHNICAL AND ADMINISTRATIVE SUPPORT BY NON-GOVERNMENT PERSONNEL**

It is the intent of DTRA to use non-government personnel (e.g. contractor support personnel) in the review and administration of all submittals for this BAA. Participation in this BAA requires Northrop Grumman and their subcontractors, Suntiva, and BRTRC Incorporated employees to have access to proposal information including information that may be considered proprietary. All individuals in this category having access to any proprietary data must certify that they will not disclose any information pertaining to this BAA including any submittal, the identity of any submitters, or any other information relative to this BAA. The contracts with these companies contain Organizational Conflict of Interest provisions and includes contractual specifications for non-disclosure of proprietary contractor information. Additionally, Northrop Grumman Information Technology and its subcontractor employees, in their role as an Advisory and Assistance Services contractor to the Defense Threat Reduction Agency, will provide technical input in an advisory role, as Subject Matter Experts, to the Government reviewers in addition to providing administrative support in the management of the proposals and their technical review. Submission of a Phase I or Phase II proposal to this BAA constitutes the offeror's consent to the disclosure of their information to Northrop Grumman and their subcontractors, Suntiva and BRTRC employees under these conditions.

## **13 MANUFACTURING READINESS LEVELS (MRL)**

13.1 The Government Accountability Office (GAO) has issued a Report to Congressional Committees titled "Best Practices: Stronger Practices Needed to Improve DoD Technology Transition Processes" (September 2006, GAO-06-883). The report can be accessed at: <http://www.zyn.com/sbir/reference/GAO-d06883.pdf> or obtain summary at: <http://www.gao.gov/highlights/d06883high.pdf>

13.2 In an attempt to address the concerns of the GAO, proposals that address technologies at TRL 4 or greater should also be aware of the Manufacturing Readiness Level (MRL) considerations, where applicable. For those proposals, refer to the following questions presented below. Although these questions do not need to be specifically addressed in the proposal submission, these questions will be addressed during the project's period of performance to facilitate opportunities to better improve the potential for transitioning the technology development to an acquisition program.

### **13.3 Manufacturing Readiness Level Questions**

13.3.1 Has the technology reached a minimum Technology Readiness Level (TRL) 4 or higher? Refer to Attachment 2 for TRL definitions.

13.3.2 If yes, give consideration to the following Manufacturing Readiness Level questions, where applicable:

#### **13.3.2.1 General**

- Is the technology reproducible?

- If so, have the critical features and attributes been characterized using quantitative methods?
- Are the performance and/or purity requirements measurable using standard laboratory methods?

#### 13.3.2.2 Technology and Industrial Base

- Have manufacturing capabilities been anticipated/identified that are not readily available in the current industrial base?
- Are any potential manufacturing shortfalls documented?
- Are new materials, components, skills, and facilities anticipated?
- If so, are any potential sources/resources identified and documented?
- Have commercial potentials (e.g., spin-on, spin-off and dual-use) been considered?

#### 13.3.2.3 Materials

- Have all concept materials been compared to EPA lists of hazardous materials?
- Are any potential hazards identified and documented for the manufacture or use of the technology?

## 14 CERTIFICATIONS AND REPRESENTATIONS

14.1. Certifications and representations must be completed at the time of Phase II submission. This information must be included in Volume III, Supplemental Information, of the Phase II full proposal. Additional information beyond these certifications may be required from successful offerors and may be requested at any time.

- The Federal Acquisition Regulation and Defense Federal Acquisition Regulation Online Representations and Certifications Application (ORCA) are located at website <http://orca.bpn.gov>. Contract specific certification packages must be completed.

14.2. The SOW shall not contain proprietary data or restrictive markings. Offerors shall submit a specific acknowledgement that should it be awarded a contract under this BAA, it consents to the potential public release of its Statement of Work.

14.3 In accordance with FAR 17.504(e), 35.017(a)(2) and 35.017-3, FFRDC participants (other than the DoD FFRDCs referenced in section 4.2 and DoE FFRDCs) must provide documentation from the FFRDC sponsor authorizing its performance of the proposed effort.

14.4 In accordance with Section 4 of DoE Order 481.1C, FAR 17.504(e) and DoE FAR Supplement 970.1707-3, DoE FFRDC participants must provide a copy of the written certification from the DoE sponsor authorizing its performance of the proposed effort as a subcontractor. The DoE sponsor must provide a written certification that the proposed work –

- is consistent with or complementary to missions of DoE and the facility to which the work is to be assigned,
- will not adversely impact programs assigned to the facility,
- will not place the facility in direct competition with the domestic private sector, and
- will not create a detrimental future burden on DoE resources.

## **15 CENTRAL CONTRACTOR REGISTRATION (CCR)**

Prospective contractors must be registered in the DoD CCR database. By submission of an offer resulting from this BAA, the Offeror acknowledges the requirement that a prospective contractor must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this BAA.

**IMPORTANT:** We require that all Offerors be registered in the CCR database at the time of Phase I proposal submission. CCR registration information also must be included in Volume III, Supplemental Information, of the Phase II full proposal.

You may register with CCR by calling the CCR Assistance Center at 1-888-227-2423 or you may register online at <http://www.ccr.gov>. You will NOT be able to complete your CCR registration until CCR has confirmed your Employer Identification Number (EIN) or Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS).

Please note that it will take 24-48 hours for IRS to validate your TIN. According to the IRS, if you do not currently have an EIN and need to apply for one over the phone or Internet, you will be given a tentative EIN, but your EIN may not become active for up to two (2) weeks. If you have questions about your EIN, please call 1-800-829-4933.

If you have the necessary information ready, online registration will take about 30 minutes to complete, depending upon the size and complexity of your organization. If the organization completes the CCR registration process by 6:00 PM EST, the organizational representatives will be able to begin their registration process the very next business day.

## **16 PROTECTION OF HUMAN SUBJECTS**

16.1. If the proposed research involves human subjects or materials, offerors are asked to outline the human use, to include the source of the human subjects or materials involved in the research. This information, if applicable, must be included in Volume III, Supplemental Information, of the Phase II full proposal. Further information may be required if the proposal is successful.

16.2. All research under any award made under this BAA involving human subjects must be conducted in accordance with 32 CFR 219, 10 U.S.C. § 980, and DoD Directive 3216.2, and, as applicable, 21 CFR parts 11, 50, 56, GCP, the ICH as well as other applicable federal and state regulations. Contractors must be cognizant of and abide by the additional restrictions and limitations imposed on the DoD regarding research involving human subjects, specifically as regards vulnerable populations (32 CFR 219 modifications to subparts B-D of 45 CFR 46), recruitment of military research subjects (32 CFR 219), and surrogate consent (10 U.S.C. § 980).

16.3. DTRA Directive 3216.01 of January 28, 2005 establishes the DTRA Human Subjects Protection Program, sets forth the policies, defines the applicable terms, and delineates the procedures necessary to ensure DTRA compliance with federal and DoD regulations and

legislation governing human subject research. The regulations mandate that all DoD activities, components, and agencies protect the rights and welfare of human subjects of study in DoD supported research, development, test and evaluation, and related activities hereafter referred to as “research.” The requirement to comply with the regulations applies to new starts and to continuing research.

16.4. The DTRA Directive requires that research using human subjects may not begin or continue until the DTRA Human Research Oversight Board (HROB) has reviewed and approved the proposed protocol. Contractors and subcontractors are required to submit a valid federal assurance for their organization (institution, laboratory, facility) that has been issued by either DoD or the Department of Health and Human Services, and documentation of review of proposed protocols by the local Institutional Review Board (IRB) to include consent forms for any planned research using human subjects to the DTRA HROB for its review through the contracting officer’s representative (if assigned) or the contracting officer. The HROB review is separate from, and in addition to, local IRB review.

16.5. A study is considered to involve human research subjects if: 1) there is interaction with the subject (even simply talking to the subject qualifies; no needles are required); and 2) if the study involves collection and/or analysis of personal/private information about an individual, or if material used in the study contains links to such information.

16.6. Written approval to begin research or to subcontract for the use of human subjects under the proposed protocol will be provided in writing from the DTRA HROB, through the contracting officer. Both the contractor and the Government must maintain a copy of this approval. Any proposed modifications or amendments to the approved protocol or consent forms must be submitted to the local IRB and the DTRA HROB for review and approval. Examples of modifications/amendments to the protocol include but are not limited to:

- a change of the Principal Investigator;
- changes in duration or intensity of exposure to some stimulus or agent;
- changes in the information requested of volunteers, or changes to the use of specimens or data collected; or
- changes in perceived or measured risks or benefits to volunteers that require changes to the study.

16.7. Research pursuant to such modifications or amendments must not be initiated without IRB and HROB approval except when necessary to eliminate apparent and immediate hazards to the subject(s).

16.8. Research projects lasting more than one year require IRB review at least annually, or more frequently as required by the responsible IRB. HROB review and approval is required annually. The contractor or subcontractor must provide documentation of continued IRB review of protocols for HROB review and approval in accordance with the Contract Data Requirements List. Research must not continue without renewed HROB approval unless necessary to eliminate apparent and immediate hazards to the subject(s).

16.9. Non-compliance with any provision of this clause may result in withholding of payments under the contract pursuant to the contract's payments clause(s) and/or contract termination pursuant to the contract's termination clause(s). The Government shall not be responsible for any costs incurred for research involving human subjects prior to protocol approval by the HROB.

## **17 ANIMAL USE**

17.1. Any proposals that include animal studies or animal work must submit detailed information on the animal protocols to be used and verify the location where the studies will be conducted. Animal studies are subject to review and approval for safety and adherence to regulation. This information, if applicable, must be included in Volume III, Supplemental Information, of the Phase II full proposal. Further information may be required if the proposal is successful.

17.2. DoD Directive 3216.1, dated April 17, 1995, provides policy and requirements for the use of animals in DoD-funded research. The DoD definition of animal is any live nonhuman vertebrate. All proposals that involve the use of animals must address compliance with DoD Directive 3216.1. DTRA requires that research using animals not begin or continue until the DTRA has reviewed and approved the proposed animal use. For animals, the provisions include rules on animal acquisition, transport, care, handling, and use in: (i) 9 CFR parts 1-4, Department of Agriculture rules that implement the Laboratory Animal Welfare Action of 1966 (U.S.C. 2131-2156); and (ii) the "Guide for the Care and Use of Laboratory Animals," National Institutes of Health Publication No. 86-23.

## **18 ORGANIZATIONAL CONFLICT OF INTEREST ADVISORY**

Certain post-employment restrictions on former federal officers and employees may exist, including special Government employees (including but not limited to Section 207 of Title 18, United States Code, the Procurement Integrity Act, 41 U.S.C. 423, and FAR 3.104). If a prospective Offeror believes that a conflict of interest exists, the situation should be raised to the DTRA Contracting Officer before time and effort are expended in preparing a proposal. All offerors and proposed sub-contractors must therefore affirmatively state whether they are providing scientific, engineering and technical assistance (SETA), advisory and assistance services (A&AS) or similar support, through an active contract or subcontract, to any DTRA technical office(s), or the Assistant to the Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs (ATSD-NCB). This information must be included in Volume III, Supplemental Information, of the Phase II full proposal. All affirmations must state which office(s) the Offeror supports, and identify the prime contract number. Affirmations must be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5) must be disclosed. The disclosure must include a description of the action the Offeror has taken or proposes to take to avoid, neutralize, or mitigate such conflict

## **19 INTELLECTUAL PROPERTY**

19.1 Offerors must submit information describing the intellectual property that will be used in the performance of the contract, and any proposed restrictions on the Government's use of the intellectual property. This information must be included in Volume III, Supplemental Information, of the Phase II full proposal.

19.2 PATENTS. Offerors must provide a good faith representation, in writing, that you either own or possess appropriate licensing rights to the intellectual property that will be utilized under your proposal for this program. If you are unable to make such a representation concerning the intellectual property, provide a listing of the intellectual property to which you do not have the needed rights, and explain how and when you plan to obtain these rights.

19.2.1. For issued patents or published patent applications, provide the patent number or patent application publication number, a summary of the patent or invention title, and indicate whether the Offeror is the patent or invention owner. If a patent or invention is in-licensed by the Offeror, identify the licensor. If a patent application has been filed for an invention that has not been made publicly available and contains proprietary information, provide the patent application serial number, patent application filing date, a summary of the invention title, and indicate whether the Offeror is the invention owner. If the invention is in-licensed by the Offeror, identify the licensor.

19.2.2. Procurement contracts subject to the FAR/DFARS will contain one of the following patent clauses:

- FAR 52.227-11, Patent Rights- Retention by the Contractor-Short Form (applicable to small businesses, nonprofit organizations and institutions of higher education)
- FAR 52.227-12, Patent Rights-Retention by the Contractor-Long Form (applicable to large, for-profit businesses)

19.3 TECHNICAL DATA AND COMPUTER SOFTWARE. Offerors must submit information relating to any potential restrictions on use of technical data or computer software delivered under the contract as set forth below.

19.3.1. Offerors responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS shall identify all technical data and computer software that will be delivered under the contract in which the Government will acquire less than "unlimited rights," and must assert specific restrictions on those deliverables. Offerors shall assert restrictions in accordance with the table format set forth in DFARS 252.227-7017, Identification and Assertion of Use, Release or Disclosure Restrictions. Both noncommercial and commercial data/software restrictions should be identified in the table. In the event that offerors do not assert restrictions in accordance with the DFARS 252.227-7017 instructions, the Government may automatically be entitled to "unlimited rights" in the technical data or computer software deliverables.

19.3.2. Procurement contracts subject to the FAR/DFARS will contain the following data/software clauses as applicable:

- DFARS 252.227-7013, Rights in Technical Data-Noncommercial Items
- DFARS 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation

- DFARS 252.227-7015, Technical Data-Commercial Items (NOTE: This clause applies only if the item, component or process to which the technical data pertains meets the definition of “commercial item” in FAR 2.101)

19.4. The Government may evaluate the impact of any asserted data/software restrictions or patents during the selection and/or negotiation process, and may request additional information from the Offeror, as may be necessary, to evaluate the offeror’s assertions. If no restrictions are intended, then the Offeror should state “NONE.”

19.5. The patent rights and technical data/software rights clauses referenced above can be accessed in full text at <http://farsite.hill.af.mil/>

## 20 SUBCONTRACTING FOR CONTRACTS

20.1. Any entity (to include academic institutions and non-profit organizations) other than small businesses is required to submit a subcontracting plan. Any Offeror submitting a proposal for an award with a value more than \$550,000 and that has subcontracting possibilities must submit a subcontracting plan in accordance with FAR 19.704(a) (1) and (2). This information, if applicable, must be included in Volume III, Supplemental Information, of the Phase II full proposal. The plan format is outlined in FAR 19.7. Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. § 637(d)), it is the policy of the Government to enable small business and small disadvantaged business concerns to be considered fairly as subcontractors to contractors performing work or rendering services as prime contractors or subcontractors under Government contracts, and to assure that prime contractors and subcontractors carry out this policy.

20.2. A subcontracting plan identifies the offeror's approach to awarding subcontracts to small business, small disadvantaged business, women-owned small business, service-disabled veteran owned small business, and Historically Underutilized Business Zone (HUBZone) small business concerns, and Historically Black Colleges and Universities/Minority Institutions (HBCU/MI) on this effort. A DCMA approved master plan may be submitted in lieu of an individual contract plan. The Offeror must demonstrate how small business concerns will be used in the performance of the contract. The plan must also specify how the Offeror will identify small business concerns throughout contract performance that can be added to the contract team. The emphasis of the plan must be to maximize small business participation to the maximum extent practicable. The current DoD subcontracting goals are as follows:

<u>Percentage of subcontracted dollars</u>	
Small Business	37.2%
Small Disadvantaged Business and HBCU/MI	5%
Women-Owned Small Business Concerns	5%
Service-Disabled Veteran Owned Small Business	3%
Historically Underutilized Business Zone	3%

Note: Provide rationale if these goals cannot be achieved.

## **21 RECOMMENDED PROCUREMENT INSTRUMENT AND PRICING ARRANGEMENT**

21.1. Offerors must include in the Phase II proposal (Volume III – Supplemental Information) a summary of the pricing arrangements (e.g., Firm–Fixed-Price, Cost, or Cost-Plus-Fixed Fee) and include rationale for their use. However, the Government reserves the right to negotiate and award the contract types determined most appropriate under the circumstances. Please be advised that the Government will only consider using a FFP contract type if an offeror's cost accounting system is unacceptable. This information must be included in Volume III, Supplemental Information, of the Phase II full proposal.

21.2. For reference, a sample Cost-Plus-Fixed Fee contract will be made available on the proposal submission website for Offerors to explore. We recommend that all Offerors examine the sample and encourage them to make themselves familiar with the standard Federal Acquisition Regulations (FAR) clauses included. If selected for negotiation, Offerors will be expected to be familiar with these clauses. Clauses may vary dependent upon type of business and contract, and the specifics of each individual project.

## **22 AUTHORIZED OFFEROR PERSONNEL**

Offerors must include in the Phase II proposal the name, title, mailing address, telephone number, fax number, and e-mail address of the company and business point of contact regarding decisions made with respect to the Offeror and who can obligate the proposal contractually. Also, identify those individuals authorized to negotiate with the Government. This information must be included in Volume III, Supplemental Information, of the Phase II full proposal.

## **23 STATEMENT OF CURRENT AND PENDING SUPPORT**

Offerors must include in the Phase II proposal a statement of current and pending support of related work, and this information must be included for each investigator listed in the proposal. This statement requires that each investigator specify all grants and contracts through which he or she is currently receiving or may potentially receive financial support. This information must be included in Volume III, Supplemental Information, of the Phase II full proposal.

## **24 DCMA AND DCAA REPRESENTATIVES (Administrative and Audit Offices)**

24.1. Offerors must indicate in the Phase II proposal which DCMA and DCAA offices (or Cognizant Administrative and Audit Offices) will represent them. This information must be included in Volume III, Supplemental Information, of the Phase II full proposal.

24.2. DCMA: Offerors can identify their DCAA office by going to the following website [<https://pubapp.dcma.mil/CASD/CasdSearch.do>] and entering their ZIP code.



24.3. DCAA: Offerors can identify their DCAA office by going to the following website [<http://apps.dtic.mil/wobin/WebObjects/DCAAzipcode>] and entering their ZIP code.

24.4 ONR: Offerors can identify their ONR office by going to the following website [<http://www.onr.navy.mil/02/024/offices.asp>] and searching by region.

## **25 CONFIRMED PROPOSAL EXPIRATION DATE**

Offerors must provide written confirmation that holds the proposal, to include proposed costs, firm for 270 days after receipt. This information must be included in Volume III, Supplemental Information, of the Phase II full proposal


## **26 ATTACHMENTS**

<b>ATTACHMENT 1</b>	QUAD CHART TEMPLATE
<b>ATTACHMENT 2</b>	TECHNOLOGY READINESS LEVEL DEFINITIONS
<b>ATTACHMENT 3</b>	WHITE PAPER FORMAT
<b>ATTACHMENT 4</b>	PHASE II TECHNICAL PROPOSAL TEMPLATE
<b>ATTACHMENT 5</b>	PHASE II COST PROPOSAL TEMPLATE
<b>ATTACHMENT 6</b>	STATEMENT OF WORK TEMPLATE
<b>ATTACHMENT 7</b>	SUBMISSION CHECK LIST
<b>ATTACHMENT 8</b>	TIMELINE AND PROPOSAL TOPICS

## ATTACHMENT 1

### QUAD CHART TEMPLATE

The following information must be included in Phase I as well as in Volume III, Supplemental Information, of the Phase II full proposal and must be positioned in a landscape view. Any Quad Chart submitted that exceeds the one-page limit will not be read or evaluated.

 <p><b>Title of Project, Topic Number, Submitting Principal Investigator, Organization (Arial 24 pt, Bold)</b></p>	
<p><b>Objective:</b> Clear, concise (1-2 sentence) description of the goal of the effort (Arial 12 point)</p> <p><b>Description of Effort:</b> Brief description of the technology proposed for investigation and methodologies to be used during the course of investigation (Arial 12 pt)</p>	<p><b>Picture or graphic that illustrates the technology or concept</b></p>
<p><b>Benefits of Proposed Technology:</b> Brief statement that identifies the net advantages of the proposed technology over current practices and other competing technologies. (Arial 12 pt)</p> <p><b>Challenges:</b> A bullet list of the technical or scientific challenges being addressed (Arial 12 pt)</p> <p><b>Maturity of Technology:</b> Describe the maturity of the proposed technology with respect to the Technical Readiness Level (TRL) (Arial 12 pt)*</p> <p><b>Research Area:</b> Indicate the Research Area. Reference Attachment 8 of the BAA (Arial 12 pt)</p>	<p><b>Major goals/milestones by fiscal year:</b> -Bullet list (Arial 12 pt)</p> <p><b>Proposed Funding (\$K):</b> T OT AL \$K (Arial 12 pt)</p> <p><b>Year 1 Funding:</b> \$K <b>Year 2 Funding:</b> \$K etc.</p> <p><b>Period of Performance:</b> (months) (Arial 12 pt)</p> <p><b>PI contact info:</b> e.g. Dr. Marge N. Overra, (123) 123-1234, Marge.N.Overra@innovationsrus.com (Arial 12 pt)</p>

\* See Attachment 2 for Technology Readiness Level (TRL) definitions for systems (technology development).

## ATTACHMENT 2

### TECHNOLOGY READINESS LEVEL (TRL) DEFINITIONS

#### INTRODUCTION

Technology Readiness Levels (TRLs) are a systematic metric/measurement system that supports assessments of the maturity of a particular technology and the consistent comparison of maturity between different types of technology. TRLs were originally developed and used by the National Aeronautics and Space Administration (NASA) for technology planning. The use of TRLs has been widely adopted in government and industry. The Department of Defense (DoD) has adopted the use of TRLs as documented in the current DoD-5000 series publications. The table below provides notional TRL descriptions..

<b>Technology Readiness Level</b>	<b>Acquisition Guidebook (30 October 2002) <a href="https://acc.dau.mil/CommunityBrowser.aspx?id=18545">https://acc.dau.mil/CommunityBrowser.aspx?id=18545</a></b>
1. Basic principles observed and reported.	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Examples might include paper studies of a technology's basic properties.
2. Technology concept and/or application formulated.	Invention begins. Once basic principles are observed, practical applications can be invented. Applications are speculative and there may be no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies.
3. Analytical and experimental critical function and/or characteristic proof of concept.	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.

Technology Readiness Level	<b>Acquisition Guidebook (30 October 2002)</b> <a href="https://acc.dau.mil/CommunityBrowser.aspx?id=18545">https://acc.dau.mil/CommunityBrowser.aspx?id=18545</a>
4. Component and/or breadboard validation <sup>1</sup> in laboratory environment.	Basic technological components are integrated to establish that they will work together. This is relatively “low fidelity” compared to the eventual system. Examples include integration of “ad hoc” hardware in the laboratory.
5. Component and/or breadboard validation <sup>1</sup> in relevant environment.	Fidelity of breadboard technology increases significantly. The basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment. Examples include “high fidelity” laboratory integration of components.
6. System/subsystem model or prototype demonstration in a relevant environment.	Representative model or prototype system, which is well beyond that of TRL 5, is tested in a relevant environment. Represents a major step up in a technology’s demonstrated readiness. Examples include testing a prototype in a high-fidelity laboratory environment or in simulated operational environment.

<sup>1</sup> Not “validation” as defined by FDA. FDA-type validations will be done at TRL 6-8 and are needed for licensure.

Technology Readiness Level	<b>Acquisition Guidebook (30 October 2002)</b> <a href="https://acc.dau.mil/CommunityBrowser.aspx?id=18545">https://acc.dau.mil/CommunityBrowser.aspx?id=18545</a>
7. System prototype demonstration in an operational environment.	Prototype near, or at, planned operational system. Represents a major step up from TRL 6, requiring demonstration of an actual system prototype in an operational environment such as an aircraft, vehicle, or space. Examples include testing the prototype in a test bed aircraft.
8. Actual system completed and qualified through test and demonstration.	Technology has been proven to work in its final form and under expected conditions. In almost all cases, this TRL represents the end of true system development. Examples include developmental test and evaluation of the system in its intended weapon system to determine if it meets design specifications.
9. Actual system proven through successful mission operations.	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational test and evaluation. Examples include using the system under operational mission conditions.

## **ATTACHMENT 3**

### **PHASE I WHITE PAPER FORMAT AND PREPARATION INSTRUCTIONS**

#### **Phase I White Paper Template**

The White Paper narrative expands on the Quad Chart presentation, and must not exceed two pages, 8.5 x 11 inches, single-spaced, with one-inch margins in type not smaller than 12 point font. Any pages submitted that exceed the two-page limit will not be read or evaluated.

#### ***PROJECT TITLE***

***TOPIC NUMBER (from BAA)***

***ORGANIZATION (Offeror's Institution, Company, etc.)***

#### ***CONTENT***

The content of the White Paper narrative must be limited only to further explanation, as deemed necessary by the Offeror, of the information being conveyed as requested in the Quad Chart. Do NOT include corporate or personnel qualifications, past experience, or any supplemental information not requested in the Quad Chart.

## ATTACHMENT 4

### PHASE II TECHNICAL PROPOSAL FORMAT AND PREPARATION INSTRUCTIONS

#### **Phase II Technical Proposal Template**

The Technical Proposal has a 25-page limit for the entire document. Any pages submitted that exceed the 25-page limit will not be read or evaluated. Suggested page limitations for individual sections are listed below, but are guidelines only; however, no Technical Proposal may exceed the 25-page limit.

#### **ABSTRACT** *[1 page suggested]*

- I. **SCOPE.** This proposal is in support of the Advanced Detector Development, (or) the Nuclear Forensics Research and Development Program, and cite the same project title as used on the Quad Chart. *[8 pages suggested]*.
  - A. **Objective.** *[A clear and concise objective of the proposed project]*
  - B. **Background.** *[Provide the necessary technical and scientific background to support the scientific and/or technical merit of the proposed project.]*
  - C. **Programmatics.** This effort will support the DTRA initiative \_\_\_\_\_ (e.g., Topic Number) \_\_\_\_\_ aimed at developing *[state the capability area, e.g., Detection, Protection, etc.]* technologies, methodologies, and/or standards for eventual transition through DTRA. *[Describe your organization's management plan for the proposed project; list supporting and collaborating centers, and the roles/responsibilities of each identified academic and/or industrial sub-contractor supporting the project].*
  - D. **Relevance.** *[Describe the relevance of the proposed project in terms of user needs and the state-of-the-art of the proposed technology].*
- II. **CREDENTIALS.** *[Describe your and the organization's qualifications to perform the proposed work. Summarize the credentials of the primary performing center, and supporting academic and industrial partners to perform the work. Describe specific examples of similar work performed, and equipment and/or facilities available to perform the proposed work. List summary qualifications of PI and other key personnel. Focus on information directly relevant to the proposed work.] [4 pages suggested]*
  - A. **Summary of Credentials**
  - B. **Summary of Qualifications for PI and Key Personnel**
  - C. **Summary of Facilities to Perform the Proposed Work**
- III. **WORK TO BE PERFORMED.** *[Provide details of the work to be performed by task and subtask. [9 pages suggested]*
  - A. **General.** *[Provide an overview]*
  - B. **Summary:** *[List as many tasks as appropriate, and list tasks for all years of research proposed, adding years to the template below as necessary]*
    - Year #1 (FYxx)
      - Task 1: Appropriate Task Title 1
      - Task 2: Appropriate Task Title 2
      - Task 3: Appropriate Task Title 3
    - Year #2 (FYxx)
      - Task 4: Appropriate Task Title 4

Task 5: Appropriate Task Title 5

Task 6: Appropriate Task Title 6

C. **Detailed Tasks.** *[Describe the details of all tasks listed in above section.]*

- i. **Task 1: Appropriate Task Title 1 (FYxx)** *[Include what will be accomplished, how the task will be performed, the resources allocated against the task (personnel involved, hours, material, etc.), and the appropriate metrics to measure progress, and deliverable(s). Describe the applicable subtasks involved.]*
- ii. **Task 2: Appropriate Task Title 2 (FYxx)** *[etc.]*

IV. **PERFORMANCE SCHEDULE.** *[Provide a table of tasks and sub-tasks and the duration of performance of each in a Gantt or other suitably formatted chart. [ 2 pages suggested]*

V. **REFERENCES.** *[1 page suggested]*  
*[List any relevant documents referenced in Section I.]*



## ATTACHMENT 5

### PHASE II COST PROPOSAL FORMAT AND PREPARATION INSTRUCTIONS

The cost proposal must include, at a minimum, two separate sections (provided in one submission): a cost summary, not to exceed two-pages (see 'A', below), must precede the detailed cost portion (see 'B' below) of the cost proposal. See Section 6.4.2.2 for additional information pertaining to the cost proposal. Additionally, include detailed cost submissions for all subcontractors and consultants.

**A. Cost Summary** (not to exceed 2-pages).

A summary cost proposal must be prepared that includes the cost elements presented in the following table based on 12-month increments. Add as many years to the summary as will be included in the full proposed period of performance. Note: The periods of performance must match the information presented in the Statement of Work. Include the Topic Number and the Project Title on all pages of the summary cost proposal.

	Year 1			Year 2			Year 3		
Cost Element	Rate Hrly, Mthly	Quantity No. Hrs, No. Months	Total Amount	Rate Hrly , Mthly	Quantity No Hrs, No. Months	Total Amount	Rate Hrly, Mthly	Quantity No Hrs, No. Months	Total Amount
Direct Labor (List each direct labor category or individual separately)									
ABC Category	\$	XX	\$	\$	XX	\$	\$	XX	\$
Dr XYZ	\$	XX	\$	\$	XX	\$	\$	XX	\$
<b>TOTAL DIRECT LABOR</b>		XX	\$		XX	\$		XX	\$
Labor Burden	Labor Burden Rate	Lbr Burden Applied To: (direct labor \$\$...)	Total Amount	Labor Burden Rate	Lbr Burden Applied To: (direct labor \$\$...)	Total Amount	Labor Burden Rate	Lbr Burden Applied To: (direct labor \$\$...)	Total Amount
Fringe Benefits	%	\$	\$	%	\$	\$	%	\$	\$
Overhead	%	\$	\$	%	\$	\$	%	\$	\$
<b>TOTAL LABOR BURDEN</b>			\$			\$			\$
Material/Equipment	Matl O/H Rate	Matl O/H Applied To: (direct matl \$\$...)	Total Amount	Matl O/H Rate	Matl O/H Applied To: (direct matl \$\$...)	Total Amount	Matl O/H Rate	Matl O/H Applied To: (direct matl \$\$...)	Total Amount
<b>TOTAL MATL/EQUIPMENT</b>	%	\$	\$	%	\$	\$	%	\$\$	
<b>TOTAL TRAVEL COSTS</b>			\$			\$			\$
<b>TOTAL ALL OTHER DIRECT COSTS</b>			\$			\$			\$
<b>TOTAL SUBCONTRACTOR COSTS</b>			\$			\$			\$
<b>TOTAL DIRECT COSTS</b>			\$			\$			\$
G&A OR F&A	G&A or F&A Rate	G&A/F&A Rate Applied to: (total cost \$\$...)	Total Amount	G&A or F&A Rate	G&A/F&A Rate Applied to: (total cost \$\$...)	Total Amount	G&A or F&A Rate	G&A/F&A Rate Applied to: (total cost \$\$...)	Total Amount
<b>TOTAL G&amp;A OR F&amp;A</b>	%	\$	\$	%	\$	\$	%	\$	\$
<b>TOTAL FACILITIES CAPITAL COST OF MONEY (COM) (Attach Completed DD Form 1861)</b>			\$			\$			\$
<b>TOTAL COSTS</b>			\$			\$			\$
Fee or Profit	Fee Rate	Fee Rate Applied to: (total cost, excluding COM...)	Total Amount	Fee Rate	Fee Rate Applied to: (total cost, excluding COM...)	Total Amount	Fee Rate	Fee Rate Applied to: (total cost, excluding COM...)	Total Amount
<b>FEE OR PROFIT</b>	%	\$	\$	%	\$	\$	%	\$	\$
<b>TOTAL COST PLUS FEE</b>			\$			\$			\$

\* Note: Itemize any planned items costing greater than \$5,000 (unit cost) immediately following the table; include all equipment/material (greater than \$5000 unit cost) in Total Direct Material/Equipment in table. See Equipment/Government Property - Section 'C' herein.

**B. Detailed Cost** (no page limit) Offeror format acceptable provided it includes a detailed cost breakdown of all costs by cost element and SOW tasks based on 12-month increments. The offeror must also provide a narrative to support the requirements in each cost element. In addition, the detailed cost proposal must provide separate cost proposals for each subcontractor or consultant, which includes the same level of details required of the prime offeror. **The detailed cost proposal will include the following three sections: (1) Tabular cost breakdown by cost element and SOW tasks based on 12-month increments; (2) Narrative to support the requirements in each cost element; and (3) Subcontractor cost breakdown, as appropriate.**

Budgeted cost elements should reflect the following:

- a. Individual labor categories or persons (principal investigator, graduate students, etc.), with associated labor hours and unburdened labor rates. Allowable charges for graduate students include salary, appropriate research costs, and tuition. Allowable charges for undergraduate students include salary and research training costs, but not tuition.
- b. Cost of equipment, based on most recent quotations and itemized in sufficient detail for evaluation (see Section 'C' below).
- c. Estimate of material and operating costs.
- d. Travel costs and the relevance to stated objectives; number of trips, destinations, duration, if known and number of travelers per trip. Travel cost estimations should be based on the Joint Travel Regulations (JTR). Please note: It is DTRA Policy to not include fee on travel costs. (Laurie to complete)
- e. Publication and report costs.
- f. Consultant fees (indicating daily or hourly rate) and travel expenses and the nature and relevance of such costs.
- g. Computer services.
- h. Subcontract costs and type (the portion of work to be subcontracted and rationale). **Include detailed cost summary.**
- i. Communications costs not included in overhead.
- j. Other Direct Costs.
- k. Indirect costs.
- l. Fee/Profit, if any, which an industrial/commercial organization proposes.
- m.** Facilities Capital Cost of Money: When an offeror elects to claim facilities capital cost of money as an allowable cost, the offeror should submit Form CASB-CMF (DD Form 1861) and show the calculation of the proposed amount. (See FAR 31.205-10.)

**C. Equipment/Government Property**

It is the DoD policy that all commercial and non-profit recipients provide the equipment needed to support proposed research. In those rare cases where specific additional equipment is approved for commercial and non-profit organizations, such approved cost elements shall be separately negotiated.

Offerors desiring that the Government purchase the equipment under the proposed effort shall state the organization's inability or unwillingness to furnish the equipment and provide a justification of need. However, an offeror's inability or unwillingness to supply its own resources, alone, is not sufficient reason for Government furnishing or acquisition of equipment. In providing justification for the need of Government furnished equipment, offerors should clearly demonstrate that it is (1) in the Government's best interest; (2) that the overall benefit to the acquisition significantly outweighs the increased cost of administration, including ultimate property disposal; (3) that providing the property does not substantially increase the Government's assumption of risk; and (4) that Government requirements cannot otherwise be met. Government purchase of equipment that is not included in a deliverable item will be evaluated for allowability on a case-by-case basis.

Proposals that include permanent equipment must itemize each item and its respective cost in Volume II – Cost Proposal. Permanent equipment is any article of nonexpendable tangible property having a useful life of more than two years and an acquisition cost of \$5000 or more per unit. The justification for each item of permanent equipment and its cost must be disclosed in the cost proposal to include as applicable:

- Vendor Quote: Show name of vendor and number of quotes received and justification of intended award is to other than the lowest bidder.
- Historical Cost: Identify vendor, date of purchase and whether or not cost represented the lowest bid. Include release(s) for not soliciting current quotes.
- Estimate: Include rationale for estimate and reasons for not soliciting current quotes.
- Special Test Equipment to be fabricated by the contractor for research purposes and its cost.
- Standard equipment to be acquired and modified to meet specific requirements including acquisition and modification costs, listed separately.
- Existing equipment to be modified to meet specific research requirements and modification costs. Do not include as special test equipment those items of equipment that, if purchased by the contractor with contractor funds, would be capitalized for Federal income tax purposes.
- Specification as to whether or not each item of equipment will be included as part of a deliverable under a resulting award.

Title of equipment or other tangible property purchased with government funds may be vested in institutions of higher education or with non profit organizations, whose primary purpose is the conduct of scientific research. Vestiture of title will be determined/negotiated prior to any purchases.

Commercial organizations are expected to possess the necessary plant and equipment to conduct the proposed research. Equipment purchase for commercial organizations will be supported only in exceptional circumstances.



## ATTACHMENT 6

### STATEMENT OF WORK FORMAT AND PREPARATION INSTRUCTIONS

#### **Statement of Work Template**

A Statement of Work must be included in Volume III, Supplemental Information, of the Phase II full proposal. The SOW must be submitted in Adobe Acrobat ® version 8.0 or earlier and Microsoft ® Word 2003 or earlier. The SOW does not have a page limit, but should be approximately 3-5 pages in length that is a separate and distinct document suitable for incorporation into the procurement instrument. Do not put proprietary data or markings in the SOW. Pages should be numbered and the initial page should have a date (document date) shown under the title.

The proposed SOW must accurately describe the work to be performed. The proposed SOW must also contain a summary description of the technical methodology as well as the task description, but not in so much detail as to make the SOW inflexible.

The SOW format follows:

(1) 1.0 - Objective: This section is intended to give a brief overview of the specialty area and should describe why the work is being pursued, and what you are trying to accomplish.

(2) 2.0 - Scope: This section includes a statement of what the SOW covers. This should include the technology area to be investigated, objectives/goals, and major milestones for the effort.

(3) 3.0 - Background: The Offeror must identify appropriate documents that are applicable to the effort to be performed. This section includes any information, explanations, or constraints that are necessary in order to understand the requirements. It may include relationship to previous, current and future operations. It may also include techniques previously tried and found ineffective.

(4) 4.0 - Tasks/Technical Requirements:

(a) This section contains the detailed description of tasks which represent the work to be performed that are contractually binding. Thus, this portion of SOW should be developed in an orderly progression and presented in sufficient detail to establish the feasibility of accomplishing the overall program goals. The work effort should be segregated by performance period for all tasks to be performed in that year (e.g., Year 1, Year 2, Year 3). Identify the major tasks in separately numbered sub-paragraphs. Each major task should delineate, by subtask, the work to be performed by year and number each task using the decimal system (e.g. 4.1, 4.1.1, 4.1.1.1, 4.2, etc.). The sequence of performance must be presented by fiscal year and task, the same as in Section III of the technical proposal and the SOW must contain every task to be accomplished to include a detailed schedule.

(b) The tasks must be definite, realistic, and clearly stated. Use “the

contractor shall” whenever the work statement expresses a provision that is binding. Use “should” or “may” whenever it is necessary to express a declaration of purpose. Use “will” in cases where no Offeror requirement is involved; e.g., power will be supplied by the Government. Use active voice in describing work to be performed.

(c) Do not use acronyms or abbreviations without spelling out acronyms and abbreviations at the first use; place the abbreviation in parenthesis immediately following a spelled-out phrase.

(d) If presentations/meetings are identified in your schedule, include the following paragraph in your SOW:

“Conduct presentations/meetings at times and places specified in the contract schedule.”

(5) 5.0 - CDRLs/Other Deliverables:

(a) The Contracts Data Requirements List (CDRL) serves as the contractual definition of the data item deliverables the contractor is required to generate under a contract. The CDRL spells out the information to be contained in the data and the frequency of submission of the data. Data requirements are not necessarily limited to technical information; they may be periodic reports such as monthly progress reports or cost reports; project or test results reports; manuals; briefings; etc.

(b) Describe other deliverables, in addition to those listed below, that Offeror proposes to provide to the Government such as hardware, software, etc.

1. Monthly Status Report (Monthly Contract Performance Report): After award, each report is due within 15 days after the end of the month. Format as provided to Contractor.
2. Monthly Cost Status Report: Submission will be in conjunction with the Monthly Status Reports, 15 days after the end of each month. Format as provided to Contractor.
3. Annual Report (Cumulative Annual Progress Report): First submission within 15 days after the end of the first Fiscal Year following award. Subsequent reports due within 15 days after the end of the Fiscal Year. Format as provided to Contractor.
4. Miscellaneous Data Submissions (Point Papers, Research, Correspondence, Briefings & Related Documents): Submission frequencies and dates will be dictated in the SOW tasks. Deliverable shall be compatible electronic media. Contractor format acceptable, unless specifically cited in SOW.
5. Patents – Reporting of Subject Inventions (Interim Reports): Provide report(s) every 12 months from the date of the contract as identified in the DFARS 252.227-7039 (Patents – Reporting of Subject Inventions (DD Form 882 attached)) and the FAR 52.227-11/FAR 52.227-12 (Patent Rights – Retention by the Contractor) (h) reporting on utilization of subject inventions.

6. Final Report: Submission within 15 days of completion of period of performance.  
Contractor format acceptable.



## ATTACHMENT 7

### PROPOSAL SUBMISSION CHECKLIST (for convenience/informational purposes)

<b>Proposal Submission Website Registration</b>	
<b>Data to be Entered in Website for Cover Sheets</b>	
POC Information	
Address and Country	
DUNS	
TIN	
NAICS	
CAGE Code	
Institution Type (Large or Small Business, Academic, etc.)	
<b>Phase I</b>	
Quad Chart	
White Paper	
<b>Printed Confirmation of Upload of Phase I Proposal</b>	
<b>Phase II</b>	
Volume I: Technical Proposal (PDF Upload)	
Volume II: Cost Proposal (PDF Upload)	
Volume III: Supplemental Information (PDF Upload)	
Updated Quad Chart	
Statement of Work	
DUNS, TIN, & NAICS	
Certifications and Representations	
CCR	
Human Subjects	
Animal Use	
Organizational Conflict of Interest Advisory	
Intellectual Property Assertions	
Subcontracting Plan	
Recommend contract type/pricing arrangement with rationale	
Authorized Offeror Personnel	
Statement of Current and Pending Support	
DCMA/DCAA Representatives	
Confirmed Proposal Expiration Date	
<b>Printed Confirmation of Upload of Phase II Proposal</b>	

## ATTACHMENT 8

### TIMELINE AND PROPOSAL TOPICS

#### PROPOSAL SUBMISSION TIMELINES AND MILESTONES

SCHEDULE	
Date	Event
November 20, 2008	BAA announced in FedBizOpps website
December 9, 2008	Deadline for submission of questions
December 19, 2008 at 2:00 p.m. EST	Phase I Submission Deadline
~ 30 days after receipt of Phase I Submission(s)	Phase II Invitations or Non-Selection Notifications Issued
~ 45 days after Phase II Invitation(s) Issued	Phase II Submission Deadline
~ 65 days after receipt of Phase II Full Proposal(s)	Announcement of Apparent Successful Offerors; non-selection notifications will follow within 2 weeks
Awards expected to begin 60-120 days following beginning of negotiations <sup>1, 2</sup>	

Notes:

1: Actual award dates will vary based on complexity, statutory requirements, quality of proposal, pricing considerations, DCAA audits of proposed rates, type of instrument, number of awards, and other considerations. All dates are subject to change.

2: Awards will be made subject to the availability of funds. All offerors will be invited to begin negotiations upon notification of intent to award, and awards will be made as funds are available.

This BAA will be a multi-year BAA, remaining effective for five years from the initial date of issuance, January 2008, unless otherwise amended. This BAA currently reflects the initial FY 2009 call for proposals based on the topics and timeline identified herein. During this five-year effective period, the Government anticipates that additional calls for proposals will occur, at a minimum, an annual basis. Should the Government initiate additional calls for proposals, an amendment to the BAA will be issued. This BAA, in addition to any amendments issued in conjunction with this BAA, will be posted to the website and for informational purposes on the DTRA website. It is the responsibility of the offeror and interested parties to stay abreast of BAA amendments by regularly checking the FedBizOpps website.

#### PROPOSAL TOPICS

This BAA solicits proposals in the following areas of nuclear detection and forensics. These technologies address capability gaps identified to support the detection and interdiction of radiological and nuclear materials, passive defense and consequence management from events involving nuclear or radiological materials, and the forensic assessment of nuclear and

radiological materials. This BAA is limited to projects that fit within Technology Readiness Levels four through six.

DTRA develops nuclear detection solutions for Department of Defense use in operational environments. The DoD has a range of missions as expressed in the national military strategy to counter-weapons of mass destruction. Many of these missions are enabled by radiation detection technologies. Proposed technology solutions must provide substantial improvements over current nuclear detection capabilities or provide new capabilities while simultaneously meeting suitability and maintainability requirements for military operations. Proposals for radiation detection technologies and systems are sought to address the following capability needs:

## **FY 2009 Topic Area**

### **Topic: NTD-09-DET-01**

#### **Long Range, Standoff Detection of Nuclear Material**

DTRA is seeking state-of-the-art system solutions for long-range (>100 m) detection of shielded Special Nuclear Material (SNM) via active interrogation technology. This capability is expected to detect and identify SNM in a variety of operational settings. The culmination of this work will be a technology demonstration during FY11.

For this technology demonstration, the general concept of operation is to interrogate a suspected vessel and/or vehicle at hundreds of meters from a stationary platform. System concepts of operations (CONOPS) will explore both bistatic and monostatic detector deployment in both stationary and mobile configurations relative to the interrogation source.

There is significant interest by DTRA in state-of-the-art solutions that carefully consider and address the technical parameters in Table 1 below in addition to the following areas: a) an improved beam alignment and targeting method, and operational stability and tracking method; b) accelerator capability optimization and enhancement; c) detector capability optimization and enhancement; and e) modulator for variable repetition rate during interrogation. Moreover, DTRA is interested in proposed solutions that are compliant with any power source, quickly assembled and self-aligning, and air transportable. The goal is that the proposed solution could be operated from an air platform.

**Table 1.**

Parameter	Threshold	Specification	Notes
Set-up Time / Pack-up Time	< 10 hrs set-up < 10 hrs pack-up	< 2 hrs set-up < 2 hrs pack-up	Time starts upon arrival to final destination
Shipping Requirements	Entire system and shielding should weigh less than 8 tons and be transportable by commercial aircraft.	Entire system able to be transported by one helicopter.	
Directionality	<1 m spot size at 100 m	Variable spot size	Variable spot size allows for adjustment

			of the dose/area as well as the time required to scan an area.
Interrogation range	>100 m	> 1000 m	Distance from accelerator to target
Detection range	>50 m	> 500 m	Distance from target to detector location.
Detection time	<10 min	< 1 min	Total time including the “beam on” time and the applicable “radiation detection” time
Performance	Probability of Detection > 95% Probability of False Alarm < 5%	Probability of Detection > 99.9% Probability of False Alarm < 0.1%	